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AGRICULTURAL EDUCATION: EDUCATIONAL PERIODICALS

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The number of educational periodicals published in the United States probably exceeds that on any other subject. Most of these publications are in the library of the United States Bureau of Education. In 1906 they numbered one hundred and fifty-six (64).¹

For purposes of classification the periodicals included in this number may be considered fairly representative of all such publications in the United States. They naturally fall into three groups: (1) general, including those devoted to subjects of general interest or to various general problems in education, and whose circulation is not limited to any particular section of the country or class of readers; (2) special, including those devoted to some single phase of education, as, for example, orthography, penmanship, phonetics, geography, school art, manual training, science, etc.; (3) local, including those whose main circulation is confined to a single state or group of states.

The bibliography alone of contributions and references to agricultural education in these periodicals would occupy several times the space allotted to a single article of this journal. It will therefore be necessary to confine the discussion of this subject, as represented in various educational periodicals, to some references of historical interest in Barnard's *Journal of Education*, and to a brief account of each of the above three groups.

No investigation of an educational movement would be complete without consulting Barnard's *Journal of Education*. "Wherever libraries of education are now gathered his encyclopedic journal has a place of honor. Whoever will found such a

¹ The references are to the bibliography at the end of this article or to bibliographies in other articles of this series.

library must look first to secure a set of this great work. Because he saw so far, the contents of that great work will not soon grow out of date." (65). In this work are many references to agricultural education. Three are worthy of special interest: early agricultural schools; agriculture in schools for homeless children and in schools for delinquent children; and agricultural education in foreign countries.

An account is given of probably the first agricultural school in the United States. It was founded in 1797 at Lethe, S.C., by Dr. John de la Howe. He left a will which provided for the endowment of "an agricultural or farm school in conformity, as near as can be, to a plan proposed in the *Columbian Magazine* for the month of April, 1787, for educating, boarding, and clothing twelve poor boys and twelve poor girls of the Abbeville District." The endowment consisted of 500 acres of farm land and 1,000 acres of forest (66).

An account of another early school is of interest because it anticipated some of the present notions of industrial education. The following is a quotation from a letter of a Mr. Coe to the son of Josiah Holbrook, the founder of the school:

He [Josiah Holbrook] had long cherished the idea of endeavoring to found an institution in which the course of instruction should be plain and practical; an agricultural school, where the science of chemistry and mechanics and land surveying should be thoroughly drilled into the minds of the pupils by practice. With these views the agricultural seminary was commenced in Derby (Conn.) in 1824, and continued to the fall of 1825, under the direction of your father and myself; and, as far as I know, was the first educational movement of the kind in all that region. . . . We did what we could to train the students in the *analysis of soils* and in the application of the mechanical powers to all farming operations, and took out our young men often into the field and country for practical surveying, geological excursions, road making, and the labors of the farm; but not being able at that time to place the school on an eligible foundation, it was abandoned (67).

Josiah Holbrook after giving up his school turned his attention to adult instruction which was somewhat like our present agricultural extension among farmers.

Our present organization of agricultural colleges is very

similar to a plan for such schools proposed in Barnard's *Journal of Education* in 1856 by Professor John A. Porter of Yale. This was the year after the act establishing the first agricultural college (Michigan) was passed and the year before it was formally opened. He deplored the lack of agricultural instruction in this country and suggested that such instruction might be supplied by having a demonstration farm, an experiment farm, and means of instruction in all sciences connected with culture of the soil. He says:

What a center of light would such a school as here described be to the whole agricultural community. All purported discoveries in agriculture would come to be tested, and important truths developed by experiment would go forth from it into the world. . . . Through its pupils it would disseminate widely the varied practical information which its courses would furnish, and beyond this, it might be made a means of eliciting the experimental labor of hundreds of intelligent farmers throughout the country, for the decision of the important agricultural questions which are still unsettled (68).

In a footnote at the end of the article the editor calls attention to an account in his *National Education in Europe* of the system of agricultural education established in France as it was in 1854, and also to the Institute of Agriculture and Forestry in Württemberg, and the system of agricultural education in Ireland.

Pestalozzi and his work, particularly his influence on our own school practices, receive much consideration in the journal under discussion. For example, we find the historical beginning of nature-study in this country in the object-teaching at Oswego. This attempt to put his doctrine into practice is described in great detail (69). In another place Pestalozzi is quoted as saying with reference to objective teaching that "agricultural labor offers a wider field than any other employment for this means." This statement should be contrasted with the absurd efforts made in some schools to apply these principles. It would be interesting in this connection to trace the influence of these early object-lessons on nature-study teaching and to discover to what extent it is responsible for the struggle which nature-study has had to find a legitimate place in our schools.

The agricultural school of De Fellenburg and Wehrli was a

school for the poor at Hopwyl, and many of the pupils were juvenile offenders of various sorts (70). Several Fellenburg schools were established in this country in the early part of the last century. The *Journal* brought the work of these schools in this country and in Europe into notice again. About the same time there seems to have been a revival of these methods in certain schools and institutions in this country. Practically all of the reform schools for boys in the United States are now provided with farms, and agriculture is an important part of their work. How much influence, if any, the *Journal* had in bringing this about we do not know. But we find it giving, on the one hand, details of such work as in the agricultural school just referred to, and on the other, accounts and discussions of reform schools and institutions for homeless children in this country (71).

Education in foreign countries occupied a prominent place in the *Journal*. From time to time accounts of agricultural education in various countries appeared. A good example of these accounts is to be found in one devoted to agricultural education in France and about twenty different parts of the world. This is a part of an exhaustive study of scientific instruction applied to national industries in different countries (72).

The first group of educational periodicals—those mainly devoted to general problems of education or to publication of educational research—is quite small in number compared with the other two groups. Their circulation is also much less than most of those of the third group. Notwithstanding their small number and limited circulation these periodicals contain some of our most valuable educational literature, and are, on the whole, a source of high authority in educational matters. The attention given to agricultural education is much less than would seem to be warranted in view of the great public interest in the subject and of the fact of its rapid introduction into schools of various sections of the country. Compared with other sources the literature on this subject as found in the leading periodicals of this group is very meager (Barnard's *Journal* excepted). A few of the earlier articles discuss how agricultural education might be

gradually developed in the elementary and secondary schools. Some work of an extension character was regarded at that time (1900-1) as the most feasible and practicable, nature-study, reading courses, itinerant schools, and short courses being suggested as the best means of creating an interest in the subject (73, 74).

A little later the place of agriculture in our public-school system is carefully considered with conclusions favorable to its introduction (75). In the meantime the subject is being rapidly introduced in our schools, and certain tendencies are arising that are viewed with some alarm because they are not in harmony with the national policy in school matters. An editorial in one periodical calls attention to some of the dangers arising from the establishment of agricultural high schools :

If the new type of work means the establishment of a *separate* system of high schools, the existing high schools will be sapped of the very means of their existence. . . . There is one other and more urgent reason why a separate class of high schools must not be allowed to spring up. Just as sure as they do they will breed social distinctions and cause stratifications in society. It has been our boast that children of all nationalities, occupations, and creeds enter our schoolroom doors and emerge together as American citizens. The American public school is the greatest factor in developing American citizenship that we possess, and its function in developing American citizenship is greater than teaching arithmetic, Latin, or trades. Social efficiency is much more needed just now than business efficiency. But alas, too many are thinking only of business acumen. . . . The one who argues for the establishment of a separate system of agricultural high schools or separate industrial high schools is wittingly or unwittingly an enemy to our present high schools and to true democracy (76, pp. 57-59).

The implication in this editorial that existing high schools furnish all that is really needed in secondary education is open to question, and soon brings a rejoinder :

I am afraid that the distinctions are here or have got to come, and that the high schools which are nothing more than college preparatory schools will have to sink into relative insignificance compared with schools which will teach the masses how to make a living as well as how to live. . . . We need as never before many-sided men and women, but men and women who will put how to live and how to make a living first, and how to use one's leisure second (77, p. 199).

At present the importance of the problem suggested in the foregoing discussion is being appreciated, and all the more because agricultural high schools continue to be established. Besides general discussions of the whole question of industrial education as related to elementary and secondary schools two plans for agricultural education in existing high schools are proposed and are being considered. For example, one writer believes in the correlation of high-school science and agriculture and gives numerous illustrations to show that "the benefit of correlation inures as well to the fundamental sciences as to their application in agriculture" (78). Another thinks that agriculture should be taught as a separate science. He says:

"Educators are coming to see more and more clearly that agriculture is both a science and an art, and as a result it is being taught in ways which are not strictly applicable to the teaching of other sciences." He sums up fifty-six replies to a questionnaire sent out to secondary-school men and college professors and concludes that a "majority who have had actual experience in teaching the subject advocate its being taught separately (79)."

Among the periodicals of the second group two are devoted to special phases of education that include agriculture. One is *School Science and Mathematics* and the other is the *Nature-Study Review*. The former is published in the interest of secondary education and the latter of elementary education. The editors and associate editors of both periodicals are well-known schoolmen who are actively interested in the various problems of education of their own special lines of work.

In a recent number of *School Science and Mathematics* we find among the introductory sentences of an article on biologic science in secondary schools the following:

This is pre-eminently an age of applied science; it is an intensely practical age; the average individual comes in daily contact with problems of science as never before. It is self-evident that science work in elementary schools should play an important part in the education of our youth who go into life—as a vast majority do—with no further fitting than that received in the elementary school or secondary school. It was with this thought in mind that the writer began the following preliminary investigation which aims in the first place to present some statistics bearing upon

the teaching of science, and especially of biologic science, in the secondary schools, and in the second place to suggest possible modifications in our present courses in biologic science that will make such courses a better preparation for the kind of life into which most of our young people are launching, the active life of the thinking, doing citizen (80).

This somewhat lengthy quotation with respect to one secondary-school subject is given because it represents very well the general attitude of the recent contributors to this journal. Agriculture is closely allied to all of the fundamental sciences and any such modifications of science teaching as indicated in the above reference will have an important bearing on agricultural education in the secondary schools. These contributors are already teaching particular branches of science, and their writings have to do with their own subjects in relation to agriculture rather than with agriculture as a separate subject.

The general field covered by the *Nature-Study Review* includes, as is stated in the introduction to the first number, "school gardening and the closely allied elementary agriculture" (81). This magazine is now in its sixth volume and has published numerous articles on agriculture as adapted to the elementary schools. For awhile, from September to December, 1909, a special department of school agriculture was conducted. But it was abandoned, the policy now being to devote certain numbers exclusively to this subject, as in the May number of the present volume.

The third group includes about one hundred periodicals in which every section of the country is represented. It is through these that the masses of the teachers are reached. In many states some educational periodical becomes a sort of official organ for the state department of education. Practically all whose subscribers are teachers in the rural schools give considerable attention to agriculture, mainly in the way of suggestions and helps to teachers. The effect of these periodicals on the actual teaching of agriculture in the public schools has been, up to the present, far greater than of any of the first or second group. One periodical, the *School News* (Illinois), has been referred to in a previous article of this series (42). It was one of the first

to take up elementary agriculture in response to the new demand upon the rural teachers. In 1900 it began to publish short articles on various phases of agriculture adapted to the elementary schools. The practical efforts of this magazine to help the rural teachers is further shown in connection with the new course of study for the state of Illinois. This course includes agriculture. The department of the magazine devoted to school work in agriculture expands the course of study in agriculture into descriptive details and gives specific directions to teachers as to how to present the new work (82).

The *Nebraska Teacher*, besides publishing special articles on various phases of agriculture, is now publishing a series of articles by Superintendent E. C. Bishop on "Agriculture and Home Economics" (83). These articles are intended to assist teachers in their work with the boys' and girls' clubs of the state.

Many similar examples might be given but these two are typical of the work that is now being done by many if not most of the periodicals of the third group. They are close to the teachers and seem to know what they need, or at least what they want, and give it to them in a simple and concrete way.

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67. "Josiah Holbrook," HENRY BARNARD, *ibid.*, VII (1860), 229-47.

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69. "Primary Instruction by Object Lessons," *ibid.*, XII (1862), 605-45.

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